HomeWorks® QS 1-Link Processor

The HomeWorks® QS processor provides control and communication to HomeWorks® QS system components. The Ethernet link allows communication to the HomeWorks® QS software, integration with third-party systems, and communication between multiple processors. HomeWorks® QS processors may be connected using either standard networking or ad-hoc networking. All processors on a project must be connected to a single network. The HomeWorks® QS software and all integration equipment must be connected to the same network as the processors.

The processor is powered from the QSPS-DH-1-75 power supply. Refer to the HomeWorks® QS software to determine link power requirements. The HomeWorks® QS processor can be installed in an HQ-LV21, L-LV21, L-LV14, PNL-8 enclosure or DIN panels with control compartments (PDx-36 or PDx-64).

Processor Capabilities

Each HomeWorks® QS 1-Link processor has one link that can be configured as one of four types:

- HomeWorks® QS Power Panels
  16 interfaces / 256 zones
- HomeWorks® QS Wired Device Link
  99 devices / 512 zones
- HomeWorks® QS RF Link
  99 devices / 100 zones
- HomeWorks® H48 Wired Dimmers
  4 interfaces / 192 zones

Model Number

HQP6-1  HomeWorks® QS 1-Link Processor
# HomeWorks® QS 1-Link Processor

## Specifications

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<th>Specifications</th>
<th>Details</th>
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<tr>
<td><strong>Model Number</strong></td>
<td>HQP6-1</td>
</tr>
<tr>
<td><strong>Power</strong></td>
<td>Processor (P): 24–36 V–250 mA maximum</td>
</tr>
<tr>
<td><strong>Typical Power Consumption</strong></td>
<td>5 W; 8 Power Draw Units (PDUs)</td>
</tr>
<tr>
<td></td>
<td>Test conditions: Ethernet link connected, and device link in use</td>
</tr>
<tr>
<td><strong>Regulatory Approvals</strong></td>
<td>Complies with: UL508, CSA - C22.2 No.14, IEC / EN 60669, NOM</td>
</tr>
<tr>
<td><strong>Environment</strong></td>
<td>Indoor use only. 32 °F to 104 °F (0 °C to 40 °C), 0% to 90% humidity, non-condensing</td>
</tr>
<tr>
<td><strong>Heat Generated</strong></td>
<td>17 BTU/hr — typical (24 BTU/hr maximum)</td>
</tr>
<tr>
<td><strong>Cooling Method</strong></td>
<td>Passive Cooling</td>
</tr>
<tr>
<td><strong>Power Failure Memory</strong></td>
<td>System data stored in non-volatile memory. Timeclock retention for 10 years</td>
</tr>
<tr>
<td><strong>Internal Timeclock</strong></td>
<td>±1 minute per year</td>
</tr>
<tr>
<td><strong>Miswire Protection</strong></td>
<td>All terminal block inputs are over-voltage and miswire protected against wire reversals and shorts.</td>
</tr>
<tr>
<td><strong>Low-Voltage Link Wire Type</strong></td>
<td>Two pair — one pair 18 AWG (0.75 mm²), one pair 18 to 22 AWG (0.34 to 0.75 mm²) twisted shielded — IEC PELV / NEC Class 2 cable</td>
</tr>
<tr>
<td><strong>Low-Voltage Power Wire Type</strong></td>
<td>18 AWG (0.75 mm²)</td>
</tr>
<tr>
<td><strong>Communications</strong></td>
<td>Ethernet, RS485 (QS, RF, Power Panel)</td>
</tr>
<tr>
<td><strong>Link Capacities</strong></td>
<td>HomeWorks® QS Power Panel Link: 16 interfaces/256 zones</td>
</tr>
<tr>
<td></td>
<td>HomeWorks® QS Wired Device Link: 99 devices/512 zones</td>
</tr>
<tr>
<td></td>
<td>HomeWorks® QS RF Link: 99 devices/100 zones</td>
</tr>
<tr>
<td></td>
<td>HomeWorks® H48 Wired Dimmers: 4 interfaces/192 zones</td>
</tr>
<tr>
<td><strong>ESD Protection</strong></td>
<td>Meets or exceeds the IEC 61000-4-2 standard</td>
</tr>
<tr>
<td><strong>Surge Protection</strong></td>
<td>Meets or exceeds ANSI/IEEE C62.41 standard</td>
</tr>
<tr>
<td><strong>Mounting</strong></td>
<td>Mounts in HQ-LV21, L-LV14, L-LV21, PNL-8 enclosure or DIN Panels with Control Compartment (PDx-36 or PDx-64)</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>With terminal blocks (as shown): 4.27 in (108 mm) x 5.63 in (143 mm)</td>
</tr>
<tr>
<td></td>
<td>Without terminal blocks: 4.27 in (108 mm) x 5.26 in (134 mm)</td>
</tr>
<tr>
<td><strong>Connections</strong></td>
<td>One 5-pin removable terminal block* for Link 1.</td>
</tr>
<tr>
<td></td>
<td>One RJ45 standard Ethernet connection.</td>
</tr>
<tr>
<td></td>
<td>*Each terminal will accept up to two 18 AWG (0.75 mm²) wires.</td>
</tr>
</tbody>
</table>

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www.lutron.com/help  Customer Assistance: 1.844.LUTRON1 (U.S.A.)  +44.(0)20.7680.4481 (Europe)
HomeWorks® QS 1-Link Processor

Dimensions

Dimensions shown as: in (mm)

Front View

Side View

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HomeWorks® QS 1-Link Processor

Mounting

DIN Rail Power Supply (QSPS-DH-1-75 or QSPS-DH-1-60)

Wire Landing Boards (QS-WLB)

1-Link Processor HQP6-1

L-LV21/HQ-LV21

PDx-36/64

L-LV14

PNL-8

Input / Entrada / Entrée
120 - 240 V
L(+) N(-)

Output / Salida / Sortie
24 V
22.5 - 25 V

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HomeWorks® QS 1-Link Processor

**Wiring Diagrams — Networking**

**Standard Networking:** Connection using an Ethernet hub/switch/router

HQ-LV21 Panel with
2 HomeWorks® QS processors

HomeWorks® QS processors

Ethernet cable:
Cat5/Cat5e
328 ft (100 m) maximum per home run

Ethernet Router

Laptop PC

**Ad-hoc Networking:** Direct Ethernet connection from PC to processors

Ethernet cable:
Cat5/Cat5e
328 ft (100 m) maximum each run

Laptop PC

* NOTE: HQP6-1 can only be used as the last device on an Ad-hoc network.
HomeWorks® QS 1-Link Processor

Wiring Diagrams — Power Panel Link

* Pin 2 does not get connected when using a power panel link.
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Wiring Diagrams — H48 Dimmer Interface

H48 Link
LT-1 Terminal Block

5 4 3 2 1

To Processor or next H48 Dimmer Interface (max 4 HWI-H48 dimmer interfaces per link)

Pin 2 should NOT be connected

HomeWorks® Maestro®
wired local controls

Max 8 HomeWorks® Maestro® wired local controls per bus

One pair 22 AWG (0.5 mm²) twisted, shielded Class 2 wires (max home run 500 ft [152.5 m] per local control, not to exceed 1000 ft [305 m] total per bus)

Violet
Gray

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Wiring Diagrams — HomeWorks® QS RF Link

* HomeWorks® QS Hybrid Repeaters can be powered from a power supply on the wired RF link or from a wall-mounted transformer. If powering from a wall-mounted transformer, Pin 2 does not get connected.
HomeWorks® QS 1-Link Processor

Wiring Diagrams — QS Link

Common (-)  From Power Supply

V+  

QS Link  up to 99 device addresses

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Wiring Diagrams—QS Wired Device Link
with Shades/Draperies (Controllable Window Solutions)